

Work Order ID 109119

November-11-13 3:18:07 PM

109119

Page 1

Item ID:	D2002-015	Accept	*N900040100*	Setup	Start	*NS1*	
Revision ID:					Stop	*NS2*	
Item Name:	Knob						
Start Date:	11/11/13	Start Qty:	30.00	*30*	Cust Item ID:		
Required Date:	11/25/13	Req'd Qty:	30.00	*30*	Customer:		
Reference:							
Approvals:	Process Plan: MJS	Date: 13-11-13	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
100		0.00							
100									
Doosan									
Doosan Lathe									
	Memo	0.00	DAS	40	9-89	13/11/17	32	Ø	
	1-Turn as per folio FA005 & dwg								
	FOLIO REV: AA								
	DWG REV: A								
	2-Deburr as required								
110	QC2- Inspect parts off machine FAI/FAIB	0.00	DAS	40	9-89	13/11/17	32	Ø	
110									
QC									
Quality Control	Memo	0.00							

DQA:

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: _____

Work Order update only

Work Order: _____
 Part No. _____
 NCR No. _____

DISPOSITION

Rework
Scrap
Use-as-is
Suspected Unapproved

AGAINST DEPARTMENT/PROCESS

Skid-tube
Machining
Thermoforming
Large Fab

Crosstube
Small Fab
Finishing
Composite

Water Jet
Prod. Eng. Coor.
Rec/Store/Packaging
Supplier

Engineering
Quality
Other

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General							
Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Folio/Program	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>	Pressure/Forced
Centre Not Concentric	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Set-up
Cracks	<input type="checkbox"/>	Broken/Damage/Defect	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Temperature/Cure
Crimp/Kink/Ripple/Wave	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Inspection Incomplete/Unqualified	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Weld
Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>	Wrong Stock Pulled
Crushing	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Misaligned/off center	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>	
Heat Treat	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other
Inspection Strip in Tube	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Misread				
Marks/Chatter	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Off-set				
Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Calibration				
Wave/Twist in Tube	<input type="checkbox"/>	Fit/Function	<input type="checkbox"/>	Out of Sequence				

Work Order ID 109119

November-11-13 3:18:08 PM

109119

Page 2

Item ID:	D2002-015	Accept	*N900040100*	Setup	Start	*NS1*	
Revision ID:				Stop		*NS2*	
Item Name:	Knob						
Start Date:	11/11/13	Start Qty: 30.00	*30*	Cust Item ID:			
Required Date:	11/25/13	Req'd Qty: 30.00	*30*	Customer:			
Reference:							
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC8- Inspect parts - second check	0.00	B-A	13/11/18	32	0			DAS 08 9-89
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: <u>G4</u>	0.00			32x	DAS 28 9-89		13-11-18	
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release	0.00							13/11/20 JJ

13-11-19

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS							
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering					
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality					
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other					
			Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector	
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved												
FAULT CATEGORY												
Landing Gear	Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Turning Sequence Wave/Twist in Tube			General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish Fit/Function			Folio/Program Grain Hardware Inspection Incomplete/Unqualified Instructions Incomplete/Unclear Misaligned/off center Mislabeled Misread Off-set Out of Calibration Out of Sequence			Outside Dimensions Over/Under tolerance Part Incorrect Part Lost/Missing Part Moved Positioned Wrong Power Loss/Surge		

Picklist Print

November-11-13 3:18:11 PM

Page 1

Work Order ID: 109119

109119

Parent Item: D2002-015

D2002-015

Parent Item Name: Knob

Start Date: 11/11/13

Required Date: 11/25/13

Start Qty: 30.00

Required Qty: 30.00

Comments: IPP C00.05.18Added inspection level 8EC
 IPP Rev:D Now on Doosan Lathe JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MDELRINR1.2500 *MDFI RINR1 2500* DELRIN ROUND BAR 1.25"		Purchased	No			f		16.0510	**	2	DAS 40 9-89	13/11/17	

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT018 → m126596	16.051 16.051	

2.1

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____
 Part No. _____
 NCR No. _____

DISPOSITION

Rework
 Scrap
 Use-as-is
 Suspected Unapproved

AGAINST DEPARTMENT/PROCESS

Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear		General									
		Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>					
		Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>					
		Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>					
		Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>					
		Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>					
		Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>						
		Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>						
		Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>							
		Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>							
		Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>							
		Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>							

DART AEROSPACE LTD	Work Order:	109119
Description: Knob	Part Number:	D2002-015
Inspection Dwg: D2002-015 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

10AS

Measured by:	40 9-89	Audited by:	B.A DAS 08 9-89	Prototype Approval:	N/A
Date:	13/11/17	Date:	13/11/18 9-89	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.09.05	New Issue	KJ/DD	

DQA: _____

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

<p>Work Order: _____</p> <p>Part No. _____</p> <p>NCR No. _____</p>	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>
---	--	---

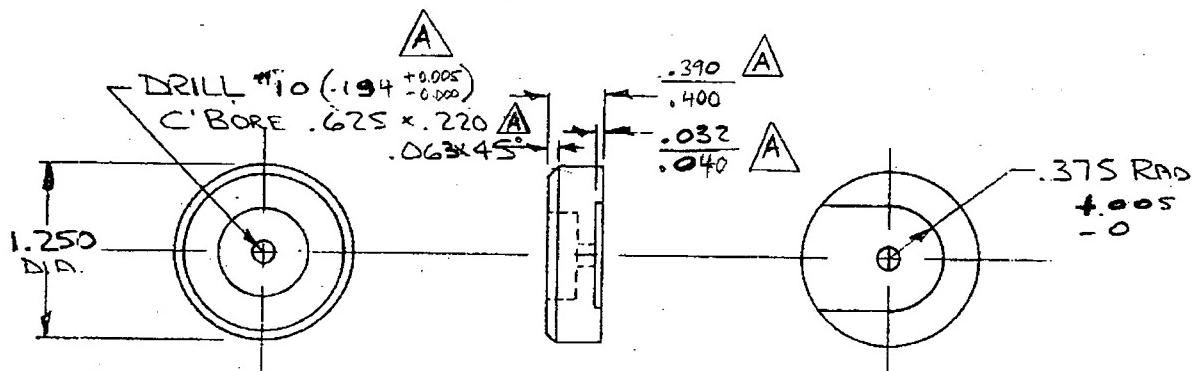
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General				Outside Dimensions				Pressure/Forced	
Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Pressure/Forced						
Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Set-up						
Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Temperature/Cure						
Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Weld						
Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Moved	<input type="checkbox"/> Wrong Stock Pulled						
Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Positioned Wrong							
Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Power Loss/Surge							
Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread								
Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set								
Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration								
Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence								

RELEASED

29.12.09 DS



DETAIL OF D2002-015

109119 MCS

13-11-11

M/F: BLACK DELRIN OR

A BLACK UHMW PER D2689

D2002-10

REVISION	DRAWN BY CP CHECKED APPROVED	DESCRIPTION OF CHANGE	THIS DRAWING IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE PERMISSION OF DART AERO ACCESSORIES INC.		PIVET CODE SHALL BE PER MIL-STD-833	QTY. REQUIRED	PART NO.	ITEM	DESCRIPTION	MATERIAL	SPEC/VER/DOC
			BASIC CODE	DIA. DASH NO HEAD SIDE SHANK SIDE HEAD FAR SIDE							
			GENERAL	14403	14403	1					
REQUIREMENTS — UNLESS OTHERWISE SPECIFIED											
1. DIMENSIONS ARE IN INCHES 2. SURFACE ROUGHNESS 141. 3. TOLERANCES ARE AS SHOWN. 4. THREADS PER INCH 18-21/2 MAX. 5. HOLESS PER INCH 15-21/2 MAX. 6. THIS DRAWING IS SUBJECT TO APPROVAL 7. ALL M/C CENTER LINES ARE 005											
REPORT ALL DISCREPANCIES — DO NOT SCALE											
APPROVAL											
DRAWN BY CP DRAWN BY BRADLEY		DATE 11/01/08		CONTRACT NO.		DART AERO ACCESSORIES INC					
CHECKED BY CLINTON		TITLE KNOB		CODE D 2002							
APPROVED BY CLINTON		SCALE 1:1		REV. DE							

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS																																		
			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>																																	
Part No. _____			Suspected Unapproved <input type="checkbox"/>																																					
NCR No. _____																																								
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector																															
Design <input type="checkbox"/>																																								
Doc/Data <input type="checkbox"/>																																								
Equip/Tooling <input type="checkbox"/>																																								
Handling/Pre <input type="checkbox"/>																																								
Material <input type="checkbox"/>																																								
Operator <input type="checkbox"/>																																								
Offset/Setup <input type="checkbox"/>																																								
Process <input type="checkbox"/>																																								
Supplier <input type="checkbox"/>																																								
Training <input type="checkbox"/>																																								
Transport <input type="checkbox"/>																																								
Unapproved <input type="checkbox"/>																																								
FAULT CATEGORY																																								
Landing Gear			General																																					
Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Inspection Strip in Tube <input type="checkbox"/>	Marks/Chatter <input type="checkbox"/>	Turning Sequence <input type="checkbox"/>	Wave/Twist in Tube <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Grain <input type="checkbox"/>	Hardware <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Misread <input type="checkbox"/>	Off-set <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Pressure/Forced Set-up <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>	Weld <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>	Other <input type="checkbox"/>